

Amendments to the Claims:

1. (Currently Amended) An arrangement for generating intensive radiation based on a plasma, comprising:

a target generator with a nozzle for metering and orientation of a target flow for plasma generation;

a vacuum chamber; and

a high-energy excitation radiation being directed to the target flow in the vacuum chamber and the target flow being completely converted piece by piece by a defined pulse energy of the excitation radiation into a plasma having a high conversion efficiency for the intensive radiation in a desired wavelength region;

said nozzle of the target generator being a multiple-channel nozzle with a plurality of separate orifices, the orifices generating a plurality of target jets, the excitation radiation for generating plasma being directed simultaneously portion by portion to the target jets within a spot of radiation;

said separate orifices of the nozzle being arranged in such a way that the target jets fill the radiation spot of the excitation radiation without gaps and without overlapping, wherein the orifices are arranged offset although the target jets appear closed to one another in the radiation spot.

2. (Currently Amended) The arrangement according to claim 1, wherein ~~the individual orifices of the nozzle are arranged in such a way that a radiation spot focused by the excitation radiation on all of the target jets exiting the nozzle is covered spatially essentially uniformly by parallel target jets, all of the target jets being completely irradiated over their diameter~~ said separate orifices of the nozzle are arranged in a plurality of rows so as to be offset to one another.

3. (Currently Amended) The arrangement according to claim 2, wherein ~~the individual orifices of the nozzle are arranged in at least one row~~ said separate orifices of the nozzle are

provided as parallel rows with an equal spacing between the orifices, wherein the rows are arranged one behind the other with respect to the incident direction of the excitation radiation and are arranged so as to be offset relative to one another by a fraction of the spacing between the orifices depending upon the quantity of rows arranged one behind the other.

4. (Currently Amended) The arrangement according to claim 3 2, wherein ~~the individual orifices of the nozzle are arranged in such a way that the target jets fill the radiation spot of the excitation radiation without gaps and without overlapping, wherein the orifices of the nozzle are arranged so as to be offset to the direction of the excitation radiation for target jets appearing adjacent to one another in the radiation spot~~ said separate orifices of the nozzle are arranged in two parallel rows which are oriented orthogonal to the direction of the excitation radiation and are offset relative to one another by one half of the orifice spacing.

5. (Currently Amended) The arrangement according to claim 2, wherein ~~the individual orifices of the nozzle are arranged in a row, wherein the row of orifices encloses an angle between 45° and 90° with the incident direction of the excitation radiation~~ the rows of orifices intersect, and intersecting rows share their first or last orifice as a common intersection and are oriented in a mirror-symmetric manner relative to the incident direction of the excitation radiation at the same angle of intersection.

6. (Currently Amended) The arrangement according to claim 5 [4] , wherein ~~the individual orifices of the nozzle are arranged in a plurality of rows so as to be offset to one another~~ two intersecting rows of orifices are oriented in a V-shaped manner relative to the incident direction of the excitation radiation.

7. (Currently Amended) The arrangement according to claim 6, wherein ~~the orifices are provided as parallel rows with an equal spacing between the orifices in the nozzle, wherein the rows are arranged one behind the other with respect to the incident direction of the excitation radiation and are arranged so as to be offset relative to one another by a fraction of~~

~~the spacing between the orifices depending upon the quantity of rows arranged one behind the other~~ the V-shape is oriented with the tip in the incident direction of the excitation radiation.

8. (Currently Amended) The arrangement according to claim 6 7, wherein ~~the orifices of the nozzle are arranged in two parallel rows which are oriented orthogonal to the direction of the excitation radiation and are offset relative to one another by one half of the orifice spacing~~ the V-shape is oriented with the opening opposite to the incident direction of the excitation radiation.

9. (Currently Amended) The arrangement according to claim 1 6, wherein ~~the rows of orifices intersect, and intersecting rows share their first or last orifice as a common intersection and are oriented in a mirror symmetric manner relative to the incident direction of the excitation radiation at the same angle of intersection~~ said separate orifices of the nozzle are arranged in one row wherein said one row of orifices is oriented oblique to the direction of excitation at an acute angle as to have each separate orifice of the row in different parallel planes being arranged one behind the other and perpendicular to the incident direction of the excitation radiation.

10. (Currently Amended) The arrangement according to claim 1 9, wherein ~~two intersecting rows of orifices are oriented in a V-shaped manner relative to the incident direction of the excitation radiation~~ a pulsed energy beam is provided as excitation radiation, wherein the energy beam has a focus whose cross-sectional area covers the width of all adjacent target jets simultaneously.

11. (Currently Amended) The arrangement according to claim 10, wherein ~~the V-shape is oriented with the tip in the incident direction of the excitation radiation~~ the energy beam is generated by a pulsed laser.

12. (Currently Amended) The arrangement according to claim 10, wherein ~~the V-shape is oriented with the opening opposite to the incident direction of the excitation radiation~~ the energy beam is a particle beam, particularly an electron beam.

13. (Currently Amended) The arrangement according to claim 10 ~~4~~, wherein ~~a pulsed energy beam is provided as excitation radiation, wherein the energy beam has a focus whose cross-sectional area covers the width of all adjacent target jets simultaneously~~ the energy beam is a particle beam, particularly an ion beam.

14. (Currently Amended) The arrangement according to claim 10 ~~43~~, wherein the energy beam is focused through suitable optics onto the target jets as a focus line which is oriented orthogonal to the direction of the target jets ~~the energy beam is generated by a pulsed laser.~~

15. (Currently Amended) The arrangement according to claim 10 ~~43~~, wherein the energy beam is composed of a plurality of individual energy beams, the plurality of energy beams being arranged in a row orthogonal to the direction of the target jets to form a quasi-continuous focus line by suitable optical elements and strike all target jets simultaneously ~~is a particle beam, particularly an electron beam.~~

16. (Currently Amended) The arrangement according to claim 10 ~~43~~, wherein the energy beam is composed of a plurality of individual energy beams, each of the individual energy beams being focused on one target jet and all target jets are irradiated simultaneously ~~is a particle beam, particularly an ion beam.~~

17. (Currently Amended) The arrangement according to claim 15 ~~43~~, wherein a laser with beam-splitting optical elements is provided for generating a row of individual energy beams ~~the energy beam is focused through suitable optics on the target jets on a focus line which is oriented orthogonal to the direction of the target jets.~~

18. (Currently Amended) The arrangement according to claim 15 ~~13~~, wherein a plurality of synchronously operated lasers is provided for generating a row of individual energy beams ~~the energy beam is composed of a plurality of individual energy beams, wherein the energy beams are arranged in a row orthogonal to the direction of the target jets to a quasi-continuous focus line by suitable optical elements and strike the target jets simultaneously.~~

19. (Currently Amended) The arrangement according to claim 10 ~~13~~, wherein the energy beam is optimized with respect to the efficiency of energy conversion into plasma through the use of multiple pulses, particularly double pulses comprising pre-pulse and main pulse ~~is composed of a plurality of individual energy beams, wherein each of the individual energy beams is focused on a target jet and all target jets are irradiated simultaneously.~~

20. (Currently Amended) The arrangement according to claim 1 ~~18~~, wherein the target jets proceeding from said separate orifices of the multiple-channel nozzle are continuous jets in the area of interaction with the excitation radiation ~~a laser with beam-splitting optical elements is provided for generating the row of individual energy beams.~~

21. (Currently Amended) The arrangement according to claim 1 ~~18~~, wherein the target jets proceeding from said separate orifices of the multiple-channel nozzle fall in droplets at the latest in the area of interaction with the excitation radiation ~~a plurality of synchronously operated lasers is provided for generating the row of individual energy beams.~~

22. (Currently Amended) The arrangement according to claim 1 ~~13~~, wherein the target jets are liquid jets ~~the energy beam is optimized with respect to the efficiency with which it couples in energy through the use of multiple pulses, particularly double pulses, comprising a pre-pulse and a main pulse.~~

23. (Currently Amended) The arrangement according to claim 1, wherein the target jets are frozen solid jets when exiting from the orifices into the vacuum chamber ~~proceeding from~~

~~the orifices of the multiple channel nozzle are continuous jets in the area of the interaction with the excitation radiation.~~

24. (Currently Amended) The arrangement according to claim 22 ~~1~~, wherein the target jets are generated from condensed xenon ~~the target jets proceeding from the orifices of the multiple channel nozzle fall in drops at the latest in the area of interaction with the excitation radiation.~~

25. (Currently Amended) The arrangement according to claim 22 ~~1~~, wherein the target jets are generated from aqueous solution of metallic salts ~~the target jets are liquid jets.~~

26. (Currently Amended) The arrangement according to claim 1, further comprising the step of generating plasma-emitted radiation in a wavelength range between soft x-ray and infrared spectral range ~~wherein the target jets are frozen solid jets when exiting from the nozzle into the vacuum chamber.~~

27. (Currently Amended) The arrangement according to claim 1 ~~23~~, comprising the step of generating EUV radiation in the wavelength range between 1 nm and 20 nm for devices used in semiconductor lithography, particularly for EUV lithography in the wavelength band about 13.5 nm ~~wherein the target jets are generated from condensed xenon.~~

28. (Cancelled)

29. (Cancelled)

30. (Cancelled)

31. (New) The arrangement according to claim 1, wherein the separate orifices of the nozzle are arranged in such a way that a radiation spot focused by the excitation radiation on all of the target jets exiting the nozzle is covered spatially essentially uniformly by parallel target jets, all of the target jets being completely irradiated over their diameter.